INTERNATIONAL JOURNAL OF PHARMACEUTICS

VOL. 47 NOS. 1–3 NOVEMBER 1988

CONTENTS

Review Article

Release and absorption rate aspects of intramuscularly injected pharmaceuticals (IJP 01593)
J. Zuidema, F.A.J.M. Pieters and G.S.M.J.E. Duchateau (The Netherlands) 1

Research Papers

Effects of surfactants on the absorption of salicylic acid from hamster cheek pouch as a model of keratinized oral mucosa (IJP 01574)
Y. Kurosaki, S. Hisaichi, C. Hamada, T. Nakayama and T. Kimura (Japan) 13

In vivo performance of [^{3}H]dexamethasone ophthalmic film delivery systems in the rabbit eye (IJP 01575)
M.A. Attia, M.A. Kassem and S.M. Safwat (Egypt) 21

Kinetics of theophylline release from suppositories in vitro: influence of physicochemical parameters (IJP 01576)
M. Zuber, B. Pellion, P. Arnaud and J.C. Chaumeil (France) 31

Effect of compression force on biopharmaceutical characteristics of Eudragit RS-based cephalexin tablets (IJP 01578)
R. Martínez-Pacheco, J.L. Vila-Jato, A. Concheiro, C. Souto, C.M. Losa and T. Ramos (Spain) 37

Percutaneous absorption, metabolism, and elimination of the penetration enhancer Azone in humans after prolonged application under occlusion (IJP 01579)
J.W. Wiechers, B.F.H. Drenth, J.H.G. Jonkman and R.A. De Zeeuw (The Netherlands) 43

Physicochemical aspects of drug release. VI. Drug dissolution rate from solid particulate dispersions and the importance of carrier and drug particle properties (IJP 01581)
E. Sjökvist and C. Nyström (Sweden) 51

Physicochemical aspects of drug release. VII. The effect of surfactant concentration and drug particle size on solubility and dissolution rate of felodipine, a sparingly soluble drug (IJP 01580)
E.K. Anderberg, M. Bisrat and C. Nyström (Sweden) 67

Macromolecular diffusion through collagen membranes (IJP 01582)
D.L. Gilbert, T. Okano, T. Miyata and S.W. Kim (U.S.A., Japan) 79

Bioavailability of phenylpropanolamine HCl from tablet dosage forms containing croscarmellose sodium (IJP 01583)
R.G. Hollenbeck (U.S.A.) 89

Collagen ophthalmic inserts for pilocarpine drug delivery system (IJP 01584)
R. Vasantha, P.K. Sehgal and K.P. Rao (India) 95

Prodrug forms for the sulfonamide group. II. Water-soluble amino acid derivatives of *N*-methylsulfonamides as possible prodrugs (IJP 01586)
J.D. Larsen, H. Bundgaard and V.H.L. Lee (Denmark, U.S.A.) 103

Distribution of [^{14}C]diazepam associated with two different types of small unilamellar liposomes in mice (IJP 01587)
U. Müller and K. Munz (Switzerland) 111

(Contents continued on p. 271)

© 1988 Elsevier Science Publishers B.V. (Biomedical Division). All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the publisher, Elsevier Science Publishers B.V. (Biomedical Division), P.O. Box 1527, 1000 BM Amsterdam, The Netherlands.

Submission of a paper to this journal entails the author's irrevocable and exclusive authorization of the publisher to collect any sums or considerations for copying or reproduction payable by third parties (as mentioned in article 17 paragraph 2 of the Dutch Copyright Act of 1912 and in the Royal Decree of June 20, 1974 (S. 351) pursuant to article 16b of the Dutch Copyright Act of 1912) and/or to act in or out of Court in connection therewith.

Special regulations for readers in the U.S.A. This journal has been registered with the copyright Clearance Center, Inc. Consent is given for copying of articles for personal or internal use, or for the personal use of specific clients. This consent is given on the condition that the copier pays through the Center the per-copy fee stated in the code on the first page of each article for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. The appropriate fee should be forwarded with a copy of the first page of the article to the Copyright Clearance Center, Inc., 27 Congress Street, Salem, MA 01970, U.S.A. If no code appears in an article, the author has not given broad consent to copy and permission to copy must be obtained directly from the author. All articles published prior to 1980 may be copied for a per-copy fee of US $2.25, also payable through the Center. This consent does not extend to other kinds of copying, such as for general distribution, resale, advertising and promotion purposes, or for creating new collective works. Special written permission must be obtained from the publisher for such copying.

Special regulations for authors. Upon acceptance of an article by the journal, the author(s) will be asked to transfer copyright of the article to the publisher. This transfer will ensure the widest possible dissemination of information.

Cited in: Current Contents (Life Sciences; Clinical Practice); International Pharmaceutical Abstracts; Biological Abstracts; Chemical Abstracts; Excerpta Medica EMBASE; Index Medicus

Printed in The Netherlands

(Contents continued from back cover)

The effect of the comminution technique on the surface energy of a powder (IJP 01589)
G. Buckton, A. Choularton, A.E. Beezer and S.M. Chatham (U.K.) 121
A new confirmation of selective action of liposomes (IJP 01590)
J. Hernández-Borrell (Spain) 129
Relationship between gum content and half-life of soluble β blockers from hydrophilic matrix tablets (IJP 01591)
S.K. Baveja, K.V. Ranga Rao and K.P. Devi (India) 133
Frusemide crystal forms; solid state and physicochemical analyses (IJP 01592)
C. Doherty and P. York (U.K.) 141
The spreading of radiolabelled fatty suppository bases in the human rectum (IJP 01594)
K. Sugito, H. Ogata, M. Noguchi, T. Kogure, M. Takano, Y. Maruyama and Y. Sasaki (Japan) 157
Development of hydrophilic human serum albumin microspheres using a drug–albumin conjugate (IJP 01595)
C.-K. Kim and Y.-K. Oh (Korea) 163
Morphic features variation of solid particles after size reduction: sonification compared to jet mill grinding (IJP 01596)
R. Thibert, M. Akbarieh and R. Tawashi (Canada) 171
Effect of fluid viscosity on the size and morphic features of salicylic acid during ball mill grinding (IJP 01598)
M. Kassem, M. Akbarieh and R. Tawashi (Egypt, Canada) 179
Absorption of benzene derivatives through the body surface and gill membranes of goldfish: substituent and intramolecular interaction effects (IJP 01597)
Y. Sakiya, S. Ishida and T. Ichikawa (Japan) 185
Synthesis and kinetic stability studies of progesterone derivatives (IJP 01599)
K. Basu, D.O. Kildsig and A.K. Mitra (U.S.A.) 195
Characterisation of the structure of filled polymer film coatings using ion beam etching (IJP 01600)
S.H.M. Gibson, R.C. Rowe and E.F.T. White (U.K.) 205
Interactions of procainamide, verapamil, guanethidine and hydralazine with adsorbent antacids and antidiarrhoeal mixtures (IJP 01602)
H.I. Al-Shora, M.A. Moustafa, E.M. Niazy, M. Gaber and M.W. Gouda 209
Instability of solutions of diaziquone stored at negative temperatures (IJP 01603)
A.G. Bosanquet (U.K.) 215
Physicochemical aspects of drug release. VIII. The relation between particle size and surface specific dissolution rate in agitated suspensions (IJP 01604)
M. Bisrat and C. Nyström (Sweden) 223
Degradable starch microspheres as a nasal delivery system for insulin (IJP 01605)
E. Björk and P. Edman (Sweden) 233
Stability of methotrexate and vinblastine in burette administration sets (IJP 01609)
J.C. McElnay, D.S. Elliott, J. Cartwright-Shamoon and P.F. D'Arcy (U.K.) 239
Dissolution of a particle system at the fluid/fluid interface (IJP 01662)
A.J.M. Schoonen, H. Grijseels and G.W. De Vries-Nijboer (The Netherlands) 249

Short Communications

A study on the dielectric constant of salicylic acid and aspirin compacts during aging (IJP 01606)
V.D. Labhasetwar and A.K. Dorle (India) 261
Enhanced dissolution rate of aspirin from aspirin–methacrylic acid, methyl methacrylate coacervates in a simulated intestinal fluid (IJP 01607)
R.S. Okor (Nigeria) 263
The use of magnetite for estimation of microspheres in mice (IJP 01615)
K.C. Lee (Korea) 265

Noticeboard 268

Author Index 269